

FIGURE 1

	1		50
Taq	MRGMLPLFEP	KGRVLLVDGH	HLAYRTFHAL KGLTTSRGEP VQAVYGFAXS
Tth	MEAMLPLFEP	KGRVLLVDGH	HLAYRTFFAL KGLTTSRGEP VQAVYGFAXS
Tfi	MTPLFDLEEP	PKRVLLVDGH	HLAYRTFYAL S.LTTSRGEP VQMVYGFARS
Tsc	MRAMLPLFEP	KGRVLLVDGH	HLAYRTFFAL KGLTTSRGEP VQAVYGFAXS
	51		100
Taq	LLKALKEDG.	DAVIVVFDAX	APSFREHAYG GYKAGRPTP EDFPRQLALI
Tth	LLKALKEDGY	KAVFVVFDAX	APSFREHAYE AYKAGRPTP EDFPRQLALI
Tfi	LLKALKEDG.	QAVVVVFDAX	APSFREHAYE AYKAGRPTP EDFPRQLALV
Tsc	LLKALREDG.	DVIVVFDAX	APSFRRHQTVE AYKAGRPTP EDFPRQLALI
	101		150
Taq	KELVDLLGLA	RLEVPGYEAD	DVLASLAKKA EKEGYEVRIL TADKDLYQLL
Tth	KELVDLLGFT	RLEVPGYEAD	DVLATLAKKA EKEGYEVRIL TADRDLYQLV
Tfi	KRLVDLLGLV	RLEAPGYEAD	DVLGTLAKKA EREGMEVRIL TGDRDFFQLL
Tsc	KEMVDLLGLE	RLEVPGFEAD	DVLATLAKKA EKEGYEVRIL TADRDLYQLL
	151		200
Taq	SDRIHVLHPE	GYLITPAWLW	EKYGLRPDQW ADYRALTGDE SDNLPGVKGI
Tth	SDRVAVLHPE	GHLITPEWLW	EKYGLRPEQW VDFRALVGDP SDNLPGVKGI
Tfi	SEKSVLLLPD	GTLVTPKDVQ	EKYGVPPERW VDFRALTGDR SDNIPGVAGI
Tsc	SERISILHPE	GYLITPEWLW	EKYGLKPSQW VDYRALAGDP SDNIPGVKGI
	201		250
Taq	GEKTARKLLE	EWGSLEALLK	NLDRLKPA.I REKILAHMDD LKLSWDLAKV
Tth	GEKTALKLLK	EWGSLENLLK	NLDRVKPENV REKIKAHLED LRLSLELSRV
Tfi	GEKTALRLLA	EWGSVENLLK	NLDRVKPSL RRKIEAHLED LHLSLDLARI
Tsc	GEKTAACLIR	EWGSLENLLK	HLEQVKPASV REKILSHMED LKLSLELSRV

251 300

Taq RTDLPLEVDF A..KRREPDR ERLRAFLERL EFGSLLHEFG LLESPKALEE
Tth RTDLPLEVDL A..QGREPDR EGLRAFLERL EFGSLLHEFG LLEAPAPLEE
Tfi RTDLPLEVDF KALRRRTPDL EGLRAFLEEL EFGSLLHEFG LLGGEKPREE
Tsc RTDLPLQVDF A..RRREPDR EGLKAFLERL EFGSLLHEFG LLESPVAAEE

301 350

Taq APWPPPEGAF VGFVLSRKEP MWADLLALAA ARGGRVHRAP EPYKALRDLK
Tth APWPPPEGAF VGFVLSRPEP MWAELKALAA CRDGRVHRAA DPLAGLKDLK
Tfi APWPPPEGAF VGFLLSRKEP MWAELLALAA ASEGRVHRAT SPVEALADLK
Tsc APWPPPEGAF VGYVLSRPEP MWAELNALAA AWEGRVYRAE DPLEALRGLG

351 400

Taq EARGLLAKDL SVLALREGLG LPPGDDPMLL AYLLDPSNTT PEGVARRYGG
Tth EVRGLLAKDL AVLASREGLD LVPGDDPMLL AYLLDPSNTT PEGVARRYGG
Tfi EARGFLAKDL AVLALREGVA LDPTDDPLL AVLLDPANTH PEGVARRYGG
Tsc EVRGLLAKDL AVLALREGIA LAPGDDPMLL AYLLDPSNTA PEGVARRYGG

401 450

Taq EWTEEAGERA ALSERLFANL WGRLEGEERL LWLYREVERP LSAVLAHMEA
Tth EWTEDAAHRA LLSERLHRNL LKRLEGEERL LWLYHEVEKP LSRVLAHMEA
Tfi EFTEDAAERA LLSERLFQNL FPRLS..EKL LWLYQEVERP LSRVLAHMEA
Tsc EWTEEAGERA LLSERLYAAL LERLKGEERL LWLYEEVEKP LSRVLAHMEA

451 500

Taq TGVRLDVAYL RALSLEVAEE IARLEAEVFR LAGHPFNLNS RDQLERVLFD
Tth TGVRLDVAYL QALSLELAEE IRRLEEEVFR LAGHPFNLNS RDQLERVLFD
Tfi RGVRLDVPLL EALSFELEKE MERLEGEVFR LAGHPFNLNS RDQLERVLFD
Tsc TGVRLDVAYL KALSLEVEAE LRRLEEEVHR LAGHPFNLNS RDQLERVLFD

501 550

Taq ELGLPAIGKT EKTGKRSTSA AVLEALREAH PIVEKILQYR ELTKLKSTYI
Tth ELRLPALGKT QKTGKRSTSA AVLEALREAH PIVEKILQHR ELTKLKNTYV
Tfi ELGLTPVGRT EKTGKRSTAQ GALEALRGAAH PIVELILQYR ELSKLKSTYL
Tsc ELGLPAIGKT EKTGKRSTSA AVLEALREAH PIVDRILQYR ELSKLKGTYI

551 600

Taq DPLPDLIHDR TGR LHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR
Tth DPLPSLVHPR TGR LHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR
Tfi DPLPRLVHPR TGR LHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRK
Tsc DPLPALVHPK TNRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR

601 650

Taq AFIAEEGWLL VALDYSQIEL RVLAHLSGDE NLIRVFQEGR DIHTETASWM
Tth AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM
Tfi AFVAEEGWLL LAADYSQIEL RVLAHLSGDE NLKRVFREGK DIHTETAAMW
Tsc AFVAEEGWRL VVLDYSQIEL RVLAHLSGDE NLIRVFQEGQ DIHTQTASWM

651 700

Taq FGVPREAVDP LMRRAAKTIN FGVLYGMSAH RLSQELAIPY EEAQAFIERY
Tth FGVPPEAVDP LMRRAAKTVN FGVLYGMSAH RLSQELAIPY EEAVAFIERY
Tfi FGLDPALVDP KMRRAAKTVN FGVLYGMSAH RLSQELGIDY KEAEAFIERY
Tsc FGVPPEAVDS LMRRAAKTIN FGVLYGMSAH RLSGELAIPY EEAVAFIERY

701 750

Taq FQSFPKVRW IEKTLEEGRR RGYVETLFG RRYVPDLER VKSVREAAER
Tth FQSFPKVRW IEKTLEEGRK RGYVETLFG RRYVPDLNR VKSVREAAER
Tfi FQSFPKVRW IERTLEEGRT RGYVETLFG RRYVPDLASR VRSVREAAER
Tsc FQSYPKVRW IEKTLEEGRE RGYVETLFG RRYVPDLASR VKSIREAAER

751

800

Taq MAFNMPVQGT AADLMKIAMV KLFPRLEEMG ARMLLQVHDE LVLEAPKERA
Tth MAFNMPVQGT AADLMKIAMV KLFPRLEEMG ARMLLQVHDE LLLEAPQARA
Tfi MAFNMPVQGT AADLMKIAMV KLFPRLKPLG AHLLQVHDE LVLEVPEDRA
Tsc MAFNMPVQGT AADLMKIAMV KLFPRLEEMG ARMLLQVHDE LVLEAPKEQA

801

837

Taq EAVARLAKEV MEGVYPLAVP LEVEVGIGED WLSAKE.
Tth EEVAALAKEA MEKAYPLAVP LEVEVGMGED WLSAKG.
Tfi EEAKALVKEV MENAYPLDVP LEVEVGVGRD WLEAKQD
Tsc EEVAQEAKRT MEEVWPLKVP LEVEVGIGED WLSAKA.

FIGURE 2

	1				50
X-1	MRAMLPLFEP	KGRVLLVDGH	HLAYRTFFAL	KGLTTSRGEP	VQAVYGFAKS
SM3	MRAMLPLFEP	KGRVLLVDGH	HLAYRTFFAL	KGLTTSRGEP	VQAVYGFAKS
Vi7a	MRAMLPLFEP	KGRVLLVDGH	HLAYRTFFAL	KGLTTSRGEP	VQAVYGFAKS
	51				100
X-1	LLKALREDGD	VVIVVFDAKA	PSFRHQTYEA	YKAGRAPTPE	DFPRQLALIK
SM3	LLKALREDGD	VVIVVFDAKA	PSFRHQTYEA	YKAGRAPTPE	DFPRQLALIK
Vi7a	LLKALREDGD	VVIVVFDAKA	PSFRHQTYEA	YKAGRAPTPE	DFPRQLALIK
	101				150
X-1	EMVDLLGLER	LEVPGFEADD	VLATLAKKAE	KEGYEVRILT	ADRDLYQLLS
SM3	EMVDLLGLER	LEVPGFEADD	VLATLAKKAE	KEGYEVRILT	ADRDLYQLLS
Vi7a	EMVDLLGLER	LEVPGFEADD	VLATLAKKAE	KEGYEVRILT	ADRDLYQLLS
	151				200
X-1	ERISILHPEG	YLITPEWLWE	KYGLKPSQWV	DYRALAGDPS	DNIPGVKGIG
SM3	DRISILHPEG	YLITPEWLWE	KYGLKPSQWV	DYRALAGDPS	DNIPGVKGIG
Vi7a	DRISILHPEG	YLITPEWLWE	KYGLKPSQWV	DYRALAGDPS	DNIPGVKGIG
	201				250
X-1	EKTAACLIRE	WGSLENLLKH	LEQVKPASVR	EKILSHMEDL	KLSLELSRVR
SM3	EKTAACLIRE	WGSLENLLKH	LEQVKPASVR	EKILSHMEDL	KLSLELSRVH
Vi7a	EKTAACLIRE	WGSLENLLKH	LEQVKPASVR	EKILSHMEDL	KLSLELSRVH
	251				300
X-1	TDLPLQVDFA	RRREPDRGL	KAFLERLEFG	SLLHEFGLLE	SPVAAEEAPW
SM3	TDLPLQVDFA	RRREPDRGL	KAFLERLEFG	SLLHEFGLLE	SPVAAEEAPW
Vi7a	TDLPLQVDFA	RRREPDRGL	KAFLERLEFG	SLLHEFGLLE	SPVAAEEAPW
	301				350
X-1	PPPEGAFVGY	VLSRPEPMWA	ELNALAAWE	GRVYRAEDPL	EALRGLGEVR
SM3	PPPEGAFVGY	VLSRPEPMWA	ELNALAAWE	GRVYRAEDPL	EALRGLGEVR
Vi7a	PPPEGAFVGY	VLSRPEPMWA	ELNALAAWE	GRVYRAEDPL	EALRGLGEVR
	351				400
X-1	GLLAKDLAVL	ALREGIALAP	GDDPMLLAYL	LDPSNTAPEG	VARRYGGWEW
SM3	GLLAKDLAVL	ALREGIALAQ	GDDPMLLAYL	LDPSNTAPEG	VARRYGGWEW
Vi7a	GLLAKDLAVL	ALREGIALAP	GDDPMLLAYL	LDPSNTAPEG	VARRYGGWEW
	401				450
X-1	EEAGERALLS	ERLYAALLER	LKGEERLLWL	YEEVEKPLSR	VLAHMEATGV
SM3	EEAGERALLS	ERLYAALLER	LKGEERLLWL	YEEVEKPLSR	VLAHMEATGV
Vi7a	EEAGERALLS	ERLYAALLER	LKGEERLLWL	YEEVEKPLSR	VLAHMEATGV
	451				500
X-1	RLDVAYLKAL	SLEVEAELRR	LEEEVHRLAG	HPFNLNSRDQ	LERVLFDELG
SM3	WLDVAYLKAL	SLEVEAELRR	LEEEVHRLAG	HPFNLNSRDQ	LERVLFDELG
Vi7a	WLDVAYLKAL	SLEVEAELRR	LEEEVHRLAG	HPFNLNSRDQ	LERVLFDELG
	501				550
X-1	LPAIGKTEKT	GKRSTSAAVL	EALREAHPIV	DRILQYRELS	KLKGTYIDPL
SM3	LPAIGKTEKT	GKRSTSAAVL	EALREAHPIV	DRILQYRELS	KLKGTYIDPL
Vi7a	LPAIGKTEKT	GKRSTSAAVL	EALREAHPIV	DRILQYRELS	KLKGTYIDPL
	551				600
X-1	PALVHPKTNR	LHTRFNQTAT	ATGRLSSSDP	NLQNIPVRTP	LGQRIRRAFV
SM3	PALVHPKTNR	LHTRFNQTAT	ATGRLSSSDP	NLQNIPVRTP	LGQRIRRAFV

Vi7a PALVHPKTNR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFV
 601 650
 X-1 AEEGWRLVVL DYSQIELRVL AHLSGDENLI RVFQEGQDIH TQTASWMFGV
 SM3 AEEGWRLVVL DYSQIELRVL AHLSGDENLI RVFQEGQDIH TQTASWMFGV
 Vi7a AEEGWRLVVL DYSQIELRVL AHLSGDENLI RVFQEGQDIH TQTASWMFGV
 651 700
 X-1 PPEAVDSLMLR RAAKTINFGV LYGMSAHRLS GELAIPEEA VAFIERYFQS
 SM3 PPEAVDSLMLR RAAKTINFGV LYGMSAHRLS GELAIPEEA VAFIERYFQS
 Vi7a PPEAVDSLMLR RAAKTINFGV LYGMSAHRLS GELAIPEEA VAFIERYFQS
 701 750
 X-1 YPKVRAWIEK TLAEGRERGY VETLFGRRRY VPDLASRVKS IREAAERMAF
 SM3 YPKVRAWIEK TLAEGRERGY VETLFGRRRY VPDLASRVKS IREAAERMAF
 Vi7a YPKVRAWIEK TLAEGRERGY VETLFGRRRY VPDLASRVKS IREAAERMAF
 751 800
 X-1 NMPVQGTAAD LMKLAMVKLF PRLQELGARM LLQVHDELVL EAPKEQAEV
 SM3 NMPVQGTAAD LMKLAMVKLF PRLQELGARM LLQVHDELVL EAPKEQAEV
 Vi7a NMPVQGTAAD LMKLAMVKLF PRLQELGARM LLQVHDELVL EAPKEQAEV
 801 833
 X-1 AQEAKRTMEE VWPLKVPLEV EVGIGEDWLS AKA
 SM3 AQEAKRTMEE VWPLKVPLEV EVGIGEDWLS AKA
 Vi7a AQEAKRTMEE VWPLKVPLEV EVGIGEDWLS AKA